

AUTOMATION SOLUTIONS FOR TESTING HVAC UNITS

FAST AND FLEXIBLE MEASUREMENT TECHNOLOGY



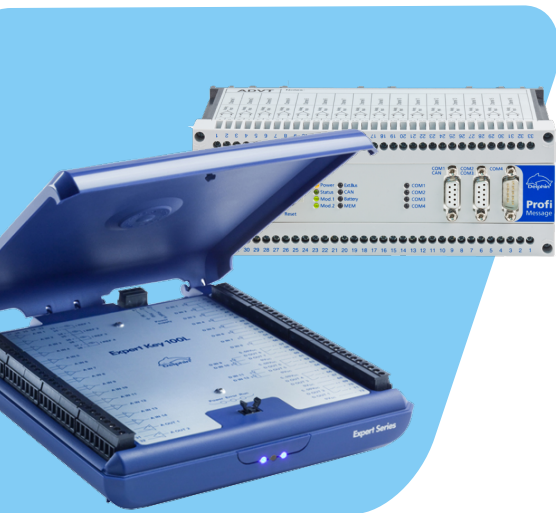
The testing of heating and air conditioning systems is performed according to a range of industry and government mandated standards. Achieving this often involves considerable effort and can be prone to error, so automation of test procedures and report generation is very desirable. While various types of measurement data provides the basis for a product's technical specifications, the data acquisition (DAQ) systems collecting it needs to be capable of high-level precision.

[Delphin Expert Key](#) and [ProfiMessage](#) systems are ideal for providing the required levels of measurement precision. When combined with the Delphin [ProfiSignal software](#), the calculations and formula required for standardized ratings like [Coefficient of Performance](#) (COP) are easily performed. A special feature within the ProfiSignal software is its dynamic reporting function that can take measured data, apply calculations and present it in a standardized format automatically, which can then be saved, printed or sent as PDF files.

TEST AUTOMATION FEATURES:

Delphin systems provide a number of features to facilitate automated testing of this type of equipment:

- A complete package including measurement hardware and test stand automation software
- Accurate, fast measurement technology
- Support for a wide variety of sensors including oil and gas flow meters
- A variety of serial communications interfaces for electrical power and energy meters
- Automated evaluation and reporting functions complying to standard requirements



CUSTOMER EXAMPLE

Delphin provided a set of data acquisition systems designed to meet a range of testing requirements to a major manufacturer of heating systems. The engineers selected their DAQ systems according to their own specific application and measurement requirements. For maximum versatility, universal analog input cards were chosen to allow connection to any required sensor including thermocouples, [Pt100](#)/Pt1000 RTD's or voltage and 4-20 mA output transducers. The system was

assembled in a package with standard input connectors to enable highly flexible and fast connection of the sensors for different test configurations.

All test procedures are now created using Delphin's ProfiSignal software, fully complying to the manufacturer's standards. ProfiSignal is a complete software system for data acquisition, test automation analysis, visualization and report generation. The software is very user-friendly and combines comprehensive functionality with easy operation.

APPLICATIONS

- Combustion tests using oil and gas
- Determining COP
- Up time, MTF and reliability testing
- Determining boiler efficiency
- Measurement of start-up pressure vibrations
- Usable energy capacity for thermal storage systems
- Data for CE certification
- Combustion trials in wood-burning ovens
- Field trial systems

For more information on the [Delphin Expert Key](#) and [ProfiMessage](#) systems, or to find the ideal solution for your application-specific needs, contact a CAS DataLogger Application Specialist at **(800) 956-4437** or visit us at www.DataLoggerInc.com.